

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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|------------------|--|-------------------|----------------|
| Appellants:      | Yin S. Tang  |                   |                |
| Title:           | Lensed Tip Optical Fiber and Method of Making the Same |                   |                |
| Application No.: | 10/799,483   | Filing Date:      | March 12, 2004 |
| Examiner:        | Jerry M. Blevins                                       | Group Art Unit:   | 2883           |
| Docket No.:      | M-15347US  | Confirmation No.: | 8401           |

Irvine, California  
May 30, 2008

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**APPEAL BRIEF UNDER 37 CFR § 41.37**

Dear Sir:

Appellant submits this Partial Appeal Brief in response to the Notification of Non-Compliant Appeal Brief dated May 1, 2008. As requested in the Notification, only sections of the brief found defective are included. In particular, the status of claim 2 is added, and all independent claims on appeal (claims 1, 13, and 20) are now identified in the Summary by paragraph number and figure number. Appellant believes the Appeal Brief is now in compliance with 37 CFR 41.37.

**III. STATUS OF CLAIMS**

Claims 1 and 3-22 are pending, rejected, and appealed. Claim 2 has been canceled.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention recited in the pending claims relates to an economical and effective method for manufacturing a lens on an optical fiber. An end of an optical fiber is first etched (claim 13) or modified (claims 1 and 20), such as by dipping an end into an etching solution, to form a continuously tapered end (claims 1, 13, and 20). Figs. 2, 3, and 4A show the etching (modifying) and the resulting tip, which is also described at paragraphs [0024]-[0036]. The end is then heated (claim 13), such as by applying energy (claims 1 and 20), to form a desired shape and focal length, as described at paragraphs [0008], [0012], and [0037]-[0043] and shown at Figs. 4B and 4C.

As set forth in the summary section, the method of forming the lensed tip optical fiber of the present invention provides for controllable radius or focal length of the lens at the tip at an economical price. The lensed tip optical fiber provides for easier optical alignment with other optical fibers or various discrete and integrated photonic devices, such as light sources, planar waveguides and photonic integrated circuits. Because each optical fiber includes a "built-in" lens, individual lenses can be removed from most optical fiber packages. The removal of individual lenses reduces the number of components required and removes the possibility of misalignment between multiple lenses or lens groups, which are problems associated with typical optical packages. The reduction of the number of components creates a simpler optical package, reduces expensive packaging related labor costs typically associated with optical component packaging and manufacturing processes, and allows the optical package to be made smaller in size. Smaller size means more convenient implementation in compact system designs as well as lower cost..

### CONCLUSION

If the Examiner or the Board has any questions regarding the above, they are respectfully requested to telephone the undersigned Attorney for Appellant at 949-752-7040.

#### Certificate of Transmission


Certificate of Transmission: I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office (USPTO) via the USPTO's electronic filing system on the date below.

#### Electronically Filed by:

  
Annie McNally

Dated: May 30, 2008

Respectfully submitted,

  
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